S/081/62/000/006/015/117
B166/B101

AUTHORS:       Golutvina, M. M., Levin, V. I., Tikhomirova, Ye. A.

TITLE:         Production of arsenic-77 without a carrier from neutron-
               irradiated germanium

PERIODICAL:    Referativnyy zhurnal. Khimiya, no. 6, 1962, 40, abstract
               6B256 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniyu
               atomn. energii. V. 2. Tashkent, AN UzSSR, 1960, 402-407)

TEXT:  A technique is described for separating $As^{77}$ without a carrier from
germanium irradiated by thermal neutrons. The irradiated specimen was dis-
solved at 90-100°C in HCl with an addition of $H_2O_2$; when this was done, the
As was oxidized to $As^{5+}$. From an 8-9 M solution in HCl the $Ge^{4+}$ was
extracted with $CCl_4$, and the $As^{5+}$ remained in aqueous solution. The $As^{5+}$
was then reduced with NaI to $As^{3+}$ and also extracted. The authors give a
graph showing the distribution factor of $As^{3+}$ and $Ge^{4+}$ when extracting with
$CCl_4$ as a function of HCl concentration. The radiochemical purity of the

Card 1/2

Production of arsenic-77....

S/081/62/000/006/015/117
B166/B101

As$^{77}$ produced is characterized by a $\beta$-spectrum, a curve of radiation absorption in Al, and a decay curve. [Abstracter's note: Complete translation.]

Card 2/2

21.3200

AUTHORS:     Golutvina, M.M.; Tikhomirova, Ye.A.

TITLE:       Determination of radioactive impurities in germanium-71 preparates
and preparation of radiochemically pure germanium-71

PERIODICAL:  Radiokhimiya, v. 2, no. 1, 1960, 112 - 119

TEXT:       The present investigations demonstrated that industrial samples of
germanium-71 (produced by neutron bombardment of germanium metal) contain $Se^{75}$,
$Sb^{124}$, $Tu^{170}$ and $Cs^{134}$ impurities in varying amounts. In order to obtain radio-
chemically pure $Ge^{71}$, a new simple extraction method was developed.  A.N. Barab-
oshkin [Ref. 4:  ZhNKh, 2, 11, 2680 (1957)] described two methods for the prepa-
ration of radiochemically pure $Ge^{71}$, but he did not publish data concerning the
half-life of the pure product.  In the present investigations preliminary experi-
ments confirmed Baraboshkin's observation of gamma- and beta-ray emitting long-
lived radioactive impurities in $Ge^{71}$ from industrial production.  Identification
of these impurities were carried out on $Ge^{71}$ samples obtained by 30-day neutron
bombardment of spec-pure germanium from 7 different production runs with specific
activities of about 180 - 220 mc/g.  Energy ranges between 30 kev and 1.5 Mev of

Card 1/4

Determination of radioactive impurities in....

22465
S/186/60/002/001/019/022
A057/A129

gamma-emitters were measured with a scintillation counter containing a ФЭУ-29 (FEU-29) photomultiplier, NaJ(Tl) crystal and single-channel analyzer. X-ray and beta-ray emitters were detected with an end-window counter [of T-25 БФЛ (T-25 BFL) type]. The latter was also used for activity measurements of beta-emitters, while the activity of gamma-emitters was determined with a gamma-counter [of MC--11 (MS-11) type] or a gamma-spectrometer. Short-lived isotopes were not detected and the measurements were carried out for 14 - 16 days. The absorption curves obtained for beta-emitters and a typical gamma-spectrum curve is graphically illustrated. In order to obtain radiochemically pure $Ge^{71}$, the following method was developed: The irradiated germanium is pulverized, dissolved in 10% NaOH solution, 30% $H_2O_2$ solution is added, the latter is boiled off, neutralized, and acidified with HCl up to 9 N HCl. From this solution Ge is extracted with $CCl_4$ (repeated 2 - 3 times). Thus Cs, Sb and rare earths remain in the aqueous phase. Selenium passes partly into the organic phase and is removed therefrom with 9 N HCl. After this germanium is re-extracted with a small volume of 5 N NaOH solution from $CCl_4$. This method gives a total germanium yield of 70% and has the advantage that filtration, destillation etc., is avoided. After chemical separation the impurities in the aqueous phase were determined radiometrically with peaks obtained for Cs and Sb and a gamma-spectrum, indicating the presence of Se

Card 2/4

Determination of radioactive impurities in....

22465
S/186/60/002/001/019/022
A057/A129

and of the yttrium group. The content of impurities varied in the different samples. Thus Se was determined in amounts of $6 \cdot 10^{-3} - 9 \cdot 10^{-1}\%$ $Se^{75}$; the activity of $Sb^{124}$ was $1 \cdot 10^{-4} - 2 \cdot 10^{-3}\%$ of Ge activity; for $Cs^{134}$ it was $3 \cdot 10^{-2} - <4 \cdot 10^{-3}\%$; for $Tu^{170}$ $3 \cdot 10^{-2} - 5 \cdot 10^{-2}\%$. According to the duration of irradiation and to the content of radioactive impurities, the content of inactive impurities in the initial samples was determined as: Se $6 \cdot 10^{-2}\%$; Cs $<1.5 \cdot 10^{-3}\%$; Tu $1 \cdot 10^{-2}\%$ (thus rare earths about $2\%$); Sb $<3.5 \cdot 10^{-3}\%$. Radiochemical purity of the obtained $Ge^{71}$ was checked by the determination of the x-ray energy of the $Ga^{71}$ daughter producing K-capture, and by the determination of the half-life. The obtained data (see Fig. 3) characterizing radiochemical properties of $Ge^{71}$ are in complete agreement with corresponding literature data [Ref. 9: M. Langevin, Ann. Phys., 1, 57 (1956); Ref. 10: B.L. Saraf et al., Phys. Rev., 91, 5, 1216 (1953)]. Germanium-71 obtained by the presented method contains a maximum of about $10^{-5}$ gamma-quanta per disintegration of gamma-impurities. There are 5 figures and 18 references: 9 Soviet-bloc and 9 non-Soviet-bloc.

SUBMITTED: May 23, 1959

Card 3/4

20653

S/186/60/002/005/012/017
A051/A130

*21, 3200*

AUTHORS:        Levin, V. I.; Golutvina, M. M.;  Tikhomirova, Ye. A.

TITLE:          Extraction of $Co^{58}$ without a carrier from nickel irradiated with neutrons, by the extraction method

PERIODICAL:     Radiokhimiya, v. 2, no. 5, 1960, 596 - 602

TEXT:        The authors have attempted to find a more convenient method of $Co^{58}$ extraction and were able to develop a separation method of indicator quantities of cobalt from the macro-quantities of nickel, using the extraction method with thributylphosphate from a hydrochloric solution. $Co^{58}$ was extracted without a carrier from nickle oxide, irradiated with neutrons in the reactor. The radiochemical purity of the extracted $Co^{58}$ was checked and the $Co^{60}$ admixture was determined. The disadvantages of other existing methods of cobalt extraction and that of nickel using alcohols from solutions of perchlorates, chlorides and bromides, described by L. Garwin, A. N. Hixon (Ref. 7: Ind. Eng. Chem., 41, 10, 2298, 2303), T. E. Moore, R. J. Lenan, P. G. Yates (Ref. 8: I. Phys. Chem., 59, 1, 90, 1955) and T. E. Moore, R. W. Goodrich, E. A. Gootsman, B.S. Slerax, P. C.

Card 1/10

20653

Extraction of $Co^{58}$ without a carrier ....

S/186/60/002/005/012/017
A051/A130

Yates (Ref. 9: J. Phys. Chem., 60, 5, 564, 1956) are said to be the formation of cobalt in the form of a complex, the destruction of which requires annealing, etc. The authors of this article investigated the extraction of cobalt and TBPh nickel from HCl and $H_2NO_3$ solutions. In the first case satisfactory results were obtained, used by the authors for developing the method of $Co^{58}$ extraction without a carrier. Experiments were conducted for determining the effect of the Co concentration on its extraction. The distribution coefficients D-C were measured of the cobalt at various concentrations of the latter (Figure 1). Further experiments for the extraction of the Co from the HCl solution showed that the distribution coefficients of the Co increase with a growth of the HCl concentration (Figure 2) passing through the maximum (K = 1.3) for solution 9 n HCl. Extraction of Co from solution with a constant concentration of chloride ions resulted in the highest values of the distribution coefficients for solutions close to neutral ones (Figure 2, 2). With an increase in the acidity of the solution the distribution coefficient first sharply drops, and then this drop slows up and the distribution coefficient becomes independent of the acidity in a certain region. Experiments conducted with solutions con-

Card 2/10

taining $NiCl_2$ and HCl, in concentrations where the chloride content remain-
ed constant and equal to 9 n resulted in a relationship shown in Figure
2,2,3.   The general relationship nature of the extraction to the acidity
is the same as for the solutions containing $Li^+$.   In extracting the nickel,
an investigation of the nickel distribution between the TBPh and the 9n HCl,
at various concentrations of the nickel, showed that D-C- of this element
under the given conditions hardly depends on its concentration within the
range of $10^{-4}$ to 1.5 n, and averages 0.003.   A change in the concentration
of the HCl from 4 to 11 n, hardly affects the D-C- of the nickel at all (when
its concentration is 5 mg/ml).   In separating the cobalt from the nickel by
extraction, the method of semi-counterflow extraction was used, where the
required conditions of the separation can be determined mathematically.
Experimental values were compared to calculated ones.   The cobalt distri-
bution determined experimentally, corresponded well with the calculated
fractions, based on the estimated D-C.   The static method of extraction is
said to be inconvenient for practical application,   thus experiments were
conducted for nickel and cobalt separation in an extraction apparatus
(Figure 3) consisting of a reactor and four compartments for dynamic extrac-
tion (Ref. 12: N. E. Brezhneva, V. I. Levin, G. V. Korpusov, N. M. Man'ko,

Card 3/ 10

20653

Extraction of Co$^{58}$ without a carrier ....

S/186/60/002/005/012/017
A051/A130

E. K. Bogacheva. II Mezhdunar. konfer. OON po primeneniyu atomnoy energii v mirnykh tselyakh, doklad No 2295). A product containing 95% Co of the initial amount was obtained. The content of the solid non-volatile residue in the product did not exceed 0.1 mg/mc. Co$^{58}$ was also extracted from irradiated Ni$_2$O$_3$ and its radiochemical purity was investigated. The Co$^{60}$ determination was performed by means of a scintillation spectrometer taking into consideration the presence of gamma-lines having an energy of 1.6 Mev, when irradiating the Co$^{58}$, and representing 0.5 % of the intensity of the 0.81 Mev gamma-line (Ref. 13: B. S. Dzhelepov, L. K. Peker, Skhemy raspada radioaktivnykh yader. Izd. AN SSSR, M.-L., 1958). In discussing the experimental results the authors point out that the main aim was to find the optimum conditions of Co$^{58}$ extraction and, thus, the investigations were not systematic. Certain conclusions are formed, however: The extracted TBPh chloride complexes of cobalt are said to be much more stable than the corresponding complexes of nickel. The iron complexes are even more stable, the D-C- of which, between the TBPh and the HCl reaches 10$^5$ (Ref. 14: H. Irving, D. N. Edgington, J. Inorg. Nucl. Chem. 10, 3/4, 306, 1959; Ref. 16: E. Bankmann, H. Specker, Z. Analyt. Chem., 162, 1. 18, 1958). The independence of the D-C- of the cobalt to the concentration of the latter, noted

Card 4/ 10

Extraction of Co$^{58}$ without a carrier ....

along a wide range of concentrations, points to the absence of polymer forms both in the organic as well as in the water phases.  The nature of the extracted cobalt complex is said to be somewhat unclear to the authors, and although Irving and Edgington (Ref. 14) feel that $CoCl_2 \cdot 2TBF$ is extracted, the authors of this article claim that nature of relationship of. the cobalt extraction to the acidity, at a constant concentration of the chloride ions (Ref. 14, Figure 8) points to the possible presence of a hydrogen ion in the composition of the extracted compound.  If it is assumed that the extraction of the Co takes place in the form of two compounds, for example, $CoCl_2$ and $H_2CoCl_2$, then with a growth in the acidity (at a constant concentration of the chloride ions) first, it is thought, a decrease of the extraction can take place, due to a drop of the concentration of the free TBF, bound by the extracting HCl.  Then with a further growth of the acidity, the formation of $H_2CoCl_4$ begins to take precedence, the extraction of which would cause an increase of the D-C-, which, it is thought, is noticed during the experiment, although not always in the same way.  No explanation has been found as to why the extraction of the Co decreases when the $Li^+$ ions are replaced in the solution by $Ni^{2+}$ ions, and further investigations of this system are recommended.  The authors state that

Card 5/10

Extraction of $Co^{58}$ without a carrier ....

20653
S/186/60/002/005/012/017
A051/A130

. although the suggested method of $Co^{58}$ extraction gives sufficient purity, other variations such as Co extraction at a lowered acidity, can be used at high chloride concentration conducting the process in a concentrated $NiCl_2$ solution and (or) adding to it calcium chloride or magnesium chloride. The advantage of this variation would be the possibility of decreasing the volumes of the extract and reextract due to an increase in the D-C- of the cobalt at low acidity. There are 5 figures, 1 table, 16 references: 3 Soviet-bloc and 13 non-Soviet-bloc. The four recent English language publications read as follows: R.S. Rochlin, Nucleonics, 17, 1, 54, 1959; H. Irving, D. N. Edgington, J. Inorg. Nucl. Chem., 10 3/4, 306, 1959; D. F. C. Morris, C. F. Bell, J. Inorg. Nucl. Chem., 10, 3/4, 336, 1959; C. E. Mellish, J. A. Payne, R. L. Otlet, UNESCO. Internat. Confer. radioisotopes in sci. res. Paper, 189, Paris, 1957.

Card 6/10

S/186/61/003/005/013/022
E071/E185

AUTHORS :    Levin, V.I., Golutvina, M.M., and Tikhomirova, Ye.A.

TITLE :    The preparation of arsenic-74 from neutron-irradiated selenium

PERIODICAL: Radiokhimiya, v.3, no.5, 1961, 597-600

TEXT :    In order to find a simple and cheap method of production of arsenic 74 (used in medicine and other fields) the authors investigated the possibility of using for this purpose the threshold reaction $Se^{74}(n,p)As^{74}$ carried out in a nuclear reactor.  One selenium specimen was irradiated in a usual channel placed in the moderator for 65 days in a stream of $4 \times 10^3$ neutrons/$cm^2$.sec, and the second for 470 hours inside the fuel element in a stream of $7 \times 10^{13}$ neutrons/$cm^2$.sec.  In order to decrease the formation of $Se^{75}$ the second specimen was surrounded by a cadmium filter.  The irradiated selenium (in the form of fine powder) was dissolved in concentrated $HNO_3$, stable arsenic added and the salts transformed into a solution in hydrochloric acid from which selenium was precipitated with sulphurous acid.

Card 1/ 3

The preparation of arsenic-74 ...

S/186/61/003/005/013/022
E071/E185

After the separation of selenium, MgNH$_4$AsO$_4$ was precipitated and redissolved in hydrochloric acid. Selenium - carrier was added and precipitated with sulphurous acid. The above operation was repeated 2 - 3 times. Finally arsenic was obtained as Mg$_2$As$_2$O$_7$ (yield about 60%), its activity was measured and its radiation investigated. An investigation of the $\gamma$ spectrum indicated the presence of an admixture with an energy of about 0.14 MeV and half life time of 90-100 days. This was found to be due to an admixture of tellurium 123. The data obtained indicated that on irradiation of selenium in a stream of neutrons (7 x 10$^{13}$ neutrons/cm$^2$.sec) arsenic 74 can be obtained with an activity of up to 200 microcurie per g of selenium. On irradiation of selenium for 470 hours in a neutron stream of about 7 x 10$^{13}$ neutrons/cm$^2$.sec the actual yield was determined as about 0.12 mcurie per g of selenium. The radioactive purity of the product depends on the purity of selenium irradiated and the accuracy of purification from selenium-75. The other arsenic isotopes which can be simultaneously produced are As$^{76}$

Card 2/ 3

The preparation of arsenic-74 ...    S/186/61/003/005/013/022
E071/E185

$(T = 26.75$ hr) and $As^{77}$ $(T = 39$ hours) which rapidly decompose. A substantial advantage of the method proposed is that $As^{73}$ with the half period of 76 days, which is particularly undesirable in medical application, is not formed. The calculated value for the effective reaction cross-section of $Se^{74}(n.p)As^{74}$ for fission neutrons $(\sigma \approx 2.9$ millibarn) agrees with the experimental one $(\sigma \approx 1.6$ millibarn).

There are 2 figures, 1 table and 10 references: 4 Soviet-bloc, 1 Russian translation from non-Soviet publication and 5 non-Soviet-bloc. The English language references read as follows:

Ref.1: G.L. Brownell, W.H. Sweet. Acta Radiol. v.46, 1-2, 425, 1956.
Ref.4: I.J. Gruverman, P. Kruger. Intern. J. Appl. Radiat.
    Isotopes, v.5, 1, 21, 1959.
Ref.7: R.S. Rochlin. Nucleonics, v.17, 1, 54, 1959.
Ref.9: D.J. Horen, W.E. Meyerhof, I.I. Kraushaar, D.O. Wells,
    E. Brun, J.E. Neighbor. Phys. Rev., v.113, 3, 875, 1959.

SUBMITTED:   June 23, 1960

Card 3/3

S/847/62/000/000/003/003
B144/B186

AUTHORS:      Tronova, I. N., Tikhomirova, Ye. A., Shlyagin, K. N.

TITLE:        Obtaining promethium$^{149}$ without a carrier

PERIODICAL:   Metody polucheniya radioaktivnykh preparatov; sbornik statey
              (Methods of producing radioactive preparations; collection
              of articles). Moscow, Gosatomizdat, 1962. 170 p. illus.,
              biblio 147 - 160

TEXT:  Ion exchange chromatography was used to isolate carrier-free $Pm^{149}$
from $Nd_2O_3$ irradiated with slow neutrons. The initial material was $Nd_2O_3$
tagged with $Nd^{147}$ and $Pm^{147}$. Dry КУ-2 (KU-2) cationite resin (100-150 mesh)
was kept standing for 24 hrs with distilled water and then purified from
organic and Fe impurities by washing it with NaOH, distilled $H_2O$ and

·3 N HCl. Subsequently it was transformed into the ammonium form by washing
it for 30-40 min. with a solution of 15% $NH_4Cl$ + $NH_3$. The Cl ions were
removed by $H_2O$ and a 0.04 M $NdCl_3$ solution (pH≈2) which contained $Pm^{147}$
and $Nd^{147}$ as indicators was passed through the 50-cm resin layer. Ethylene
Card 1/4

Obtaining promethium$^{149}$...                S/847/62/000/000/003/003
                                               B144/B186

diamine tetraacetic acid (I) or nitrile triacetic acid (II) as complex-
forming substances were used for elution; the separation was checked
radiometrically. Optimum results were obtained at a throughput rate of
0.3 and 1 ml/cm$^2$·min. A 0.5% solution of II with a pH of 5.7 - 6.5 should
be given preference, because in this case no precipitate is formed on the
resin; the Pm$^{147}$ yield was ∼90%. Separation by a 0.5% solution of I
(pH 3.6) is also very efficient but the reaction is very sensitive to
pH fluctuations, resulting in precipitation of I on the resin. The
resulting complex compound formed by Pm and II was separated chromato-
graphically in a column filled with KU-2 resin in the H$^+$-form by
acidification with concentrated HCl to pH ≈2. The Pm$^{149}$ adsorption was
98-100%. The Cl$^-$ and II anions were removed by washing with distilled H$_2$O.
NH$_4^+$ ions were washed out with 0.5 N HCl and Pm$^{3+}$ ions with 2 - 3 N HCl.

Conclusions based on the elution curve (Fig. 3) and on determination of the
radioactivity by β-radiation absorption and assaying of the decay: (1) the
main portion of the radioactivity corresponds to Pm$^{149}$ (first peak). (2)
Impurities up to 2% Nd$^{147}$, 0.3% Pm$^{147}$, and Pm$^{151}$ were found to be present.

Card 2/4

Obtaining promethium[149]...

(3) The dry residue in the $Pm^{149}$ preparation was 1 mg/mcu.  (4) The second peak corresponds to $Nd^{147}$ without radioactive impurities.  There are 7 figures and 4 tables.

Fig. 3.  Curve of elution of $Nd_2O_3$, irradiated with slow neutrons, using II as eluent.  Cationite KU-2 in the $NH_4^+$-form; size of the resin particles 100 - 150 mesh.
Legend: (a) activity, $\times 10^7$ pulse/min; (b) volume, ml.

Card 3/4

BRAUDE, V.I. (Moskva, G-34, ul. Kropotkina, d.15/10, kv.4); TIKHOMIROVA, Ye.A.;
    SEREZHNIKOVA,S.F.

    Ectopic chorioepithelioma of the lungs; two observations. Vop. onk.
    10 no.7:90-93 '64.                                        (MIRA 18:4)

    1. Iz Moskovskogo gosudarstvennogo nauchno-issledovatel'skogo instituta
    tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand. med. nauk
    T.P.Mochalova).

SVISHCHUK, A.A.; TIKHOMIROVA, Ye.A.

Model synthesis of dl- -tocopherol tagged with $C^{14}$. Ukr. khim. zhur. 29 no.10:1070-1072 '63.   (MIRA 17:1)

1. Institut organicheskoy khimii AN UkrSSR.

ASEYEV, D.D.; KOROVINA, Yu.P.; ODNOLETKOVA, Ye.F.; TONITROVA, N.S.;
TIKHOMIROVA, Ye.A.

Differential diagnosis of pleuropneumosclerosis of tuberculous
and other etiology. Probl.tub.  no.5:11-20 '61.        (MIRA 15:1)

1. Iz diagnosticheskogo otdeleniya (zav. - prof. D.D. Aseyev)
Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza
Ministerstva zdravookhraneniya RSFSR (dir. V.F. Chernyshev,
zam. dir. po nauchnoy chasti - prof. D.D. Aseyev).
        (LUNGS--DISEASES)  (DIAGNOSIS, DIFFERENTIAL)

GENDEL'MAN, M.A. , prof., doktor ekonom.nauk; TIKHOMIROVA, Ye.D., kand. ekonom.nauk

Preliminary forms of land organization for state farms on virgin lands. Zemledelie 7  no.7:82-87  Jl  '59.     (MIRA 12:9)
(Akmolinsk Province--State farms)

PROSVIRNOV, K. P., dotsent; TIKHOMIROVA, Ye. G.

Effectiveness of ambulatory chemotherapy in tuberculosis of the
lungs. Probl. tub. no.3:58-63  '62.                    (MIRA 15:4)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. A. M. Yeliseyeva)
Ivanovskogo meditsinskogo instituta (dir. - dotsent Ya. M. Romanov)
i Frunzenskogo gorodskogo protivotuberkuleznogo dispansera (glavnyy
vrach Ye. G. Tikhomirova)

        (TUBERCULOSIS)    (CHEMOTHERAPY)

TIKHOMIROVA, Ye.I., ordinator

Causes of unequal development of the fetuses in multiple (MIRA 15:11)
pregnancy. Akush.i gin. no.1:54-59 '62.

1. Iz akushersko ginekologicheskogo otdeleniya 1-y klinicheskoy
bol'nitsy (glavnyy vrach zasluzhennyy vrach BSSR A.I. Shuba),
Minsk. (PREGNANCY, COMPLICATIONS OF) (FETUS)

*TIKHOMIROVA, Ye.I.*

ZABRODSKIY, A.G.; TIKHOMIROVA, Ye.I.

Effect of melanoidins on malt microflora [with summary in English].
Mikrobiologiia 27 no.1:127-130 Ja-F '58. (MIRA 11:4)

1. Kiyevskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta
spirtovoy promyshlennosti.
        (MELANOIDINS)  (BREWING)

BERLIN, A.A.; D'YAKONOVA, V.P.; TIKHOMIROVA, Ye.I.

Polyester acrylate emulsions as binders for cellulose fiber materials.
(MIRA 18:6)
Plast. massy no.4:55-57 '65.

TIKHOMIROVA, Yo. I.: Master Med Sci (diss) -- "X-ray data on the function of the distal portion of the large intestine". Kuybyshev, 1958. 16 pp (Kuybyshev Med Inst), 230 copies (KL, No 5, 1959, 157)

TIKHOMIROVA, Ye. I.

USSR/Chemical Technology - Chemical Products and Their Application.  Fermentation
Industry, I-27

Abst Journal:  Referat Zhur - Khimiya, No 19, 1956, 63545

Author:  Serbinova, N. I., Tikhomirova, Ye. I.

Institution:  None

Title:  Determination of Contamination of Molasses with Microorganisms

Original
Periodical:  Spirt. prom-st', 1956, No 1, 16-17

Abstract:  A modified sampling for spontaneous fermentation is proposed:  5 g
of molasses under study are dissolved in 100 ml sterile water, 1% of
superphosphate extract is added and the sample is placed into a
thermostat at 30-32°; after 24-48 hours microscopic examination is
made and acidity is determined.  Increase in acidity after 48 hours
is 0.7-1.2° in the case of strongly contaminated molasses; up to 1.7-
1.9° and higher for tainted, as compared with a maximum of 0.5° for
standard molasses.  Amounts of acid- and slime-producing bacteria are
determined from the number of colonies that develop on molasses agar.
The above stated bacteria are differentiated by the nature of the
colonies.

Card 1/1

SERBINOVA, N.I.; TIKHOMIROVA, Ye.I.

Determination of bacterial contamination of molasses. Spirt.
prom. 22 no.1:16-17  '56.                                (MIRA 9:7)

1.Kiyevskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta spirtovoy promyshlennosti (for Ashkinuzi, Rabinovich).
2.Glavspirt (for Berenshteyn).3.Chernigovskiy spirtovyy trest
(for Chatskiy).
                    (Sugar--Bacteriology)

DRAZHNER, T.M.; ASHKINUZI, Z.K.; YEL'CHITS, S.V.; Prinimala uchastiye Tikho-
        mirova, Ye.I., khimik

Use of the dry culture of Aspergillus oryzae for saccharification
in the distilling industry. Trudy Ukr.NIISP no.8:80-88 '63.
                                                        (MIRA 17:3)

TIKHOMIROVA, Ye.I., assistent, kand.med.nauk

Fucntion of the distal protion of the large intestine observed
by X rays. Elem.prokt.  no.2849-54 '60.                     (MIRA 14:11)
        (INTESTINES--RADIOGRAPHY)          (DEFECATION)

TIKHOMIROVA, Ye.I.

Labor involving two massive fetuses.  Zdrav. Belor. 6 no. 10:60-61
O '60.                                                      (MIRA 13:10)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - prof.
I.M. Starovoytov) Minskogo meditsinskogo instituta.
 (LABOR (OBSTETRICS))    (FETUS)  (RH FACTOR)

TIKHOMIROVA, Ye.I. (Kuybyshev)

Clinical roentgenological diagnosis of atherosclerosis of the abdominal aorta. Klin.med. 38 no.9:117-120 S '60.

(MIRA 13:11)

1. Iz kafedry rentgenologii i radiologii (zav. - prof. Ye.L. Kevesh) Kuybyshevskogo meditsinskogo instituta.

(ARTERISCLEROSIS)          (AORTA--DISEASES)

40200
S/135/62/000/009/003/004
A006/A101

I.2310

AUTHORS: Aynbinder, S. B., Candidate of Technical Sciences,
Tikhomirova, Ye. K.,

TITLE: On the mechanism of the formation of joints in ultrasonic welding

PERIODICAL: Svarochnoye proizvodstvo, no. 9, 1962, 34 - 37.

TEXT: Results from metallographical investigations of ultrasonic-welded joints confirm Aynbinder's theory on the possible mechanism and kinetics of ultrasonic welding presented in a previous article (Svarochnoye proizvodstvo no. 12, 1959). For the present study, smooth and rippled Cu and Al specimens were ultrasonic-welded at constant and variable oscillation amplitudes and varying welding time. Optimum properties of joints were obtained at 0.17 - 0.23 sec for Al specimens and at 1.5 sec for Cu samples; the formation of strong joints was then accompanied by a recrystallization process. Cohesion of rippled specimens was poor. The tests show that satisfactory cohesion of the welded surfaces can only be assured if the surface temperature is as high as recrystallization temperature or even higher. Therefore heating is necessary. The mechanism of the ultrasonic process is explained as follows: As a result of applying constant normal and tangential loads, oxide films in the welding zone are destroyed and

Card 1/2

On the mechanism of the formation of... •          •          S/135/62/000/009/00?/00?
                                                                         A006/A101

removed from the contact surfaces; simultaneously contaminations are eliminated or
burnt-out. As a result of friction, the surface temperature increases to a degree
which makes it possible to obtain a uniform cohesion zone at a given pressure. Sub-
sequently, dissipation of energy in the welding zone decreases as external friction
passes-over to internal friction. Further application of ultrasonic oscillations
may cause fatigue failure of the joints produced. There are 8 figures.

ASSOCIATION: Institut avtomatiki i mekhaniki AN Latviyskoy SSR (Institute of Auto-
            mation and Mechanical Engineering at AS of the Latvian SSR)

Card 2/2

TIKHOMIROVA, Ye. K.   (Engineer, Riga Polytechnic Institute)

   "Ultrasonic welding of thin materials".

Report presented at the 3rd Baltic Conference on Welding, convened by the Sovnarkhozes of the Lithuanian SSR, Latvian SSR, and Estonian SSR, 8-9 April 1964, Vilnyus.

[Avtomaticheskaya SVARKA,  No. 7, 1964  p. 95]

AYNBINDER, S.B., kand.tekhn.nauk; TIKHOMIROVA, Ye.K., inzh.

Mechanism of joint formation in ultrasonic welding.
Svar. proiz. no.9:34-37 S '62.                    (MIRA 15:12)

1.  Institut avtomatiki i mekhaniki AN Latviyskoy SSR.
              (Ultrasonic welding)

.TIKHOMIROV, Ye. N.

General automatic control of boiler houses.  Gaz. delo no. 11:
19-24  '63.                                    (MIRA 17:5)

1.  Leningradskoye upravleniye magistral'nykh gazoprovodov.

BAZEKIN, Aleksandr Aleksandrovich; TIKHOMIROV, Ye.N., nauchn. red.;
RUSAKOVA, L.Ya., ved. red.

[Control and measuring instruments and automation
regulators in gas distribution stations for gas mains]
Kontrol'no-izmeritel'nye pribory i avtomaticheskie re-
guliatory gazoraspredelitel'nykh stantsii magistral'nykh
gazoprovodov. Moskva, Nedra, 1964. 78 p. (MIRA 17:5)

TIKHOMIROVA, Ye.N., kand. ekon. nauk, dotsent

Methodology of economic substantiation of the planned
technology of transshipment operations in ports. Trudy
LIVT no.74:13-19  '64.                          (MIRA 18:11)

TIKHOMIROVA, Ye.N., kand.ekonomicheskikh nauk

Distribution of indirect expenditures in the calculation of
transportation and loading and unloading costs. Trudy LIVT
no.3:41-45 '60.                                                (MIRA 15:3)
            (Inland water transportation--Costs)
                 (Cargo handling--Costs)

TIKHOMIROVA, Ye.N., kand.ekonom.nauk

Ways to reduce the cost of loading and unloading operations in river harbors. Trudy LIIVT. Vop. ekon. i org. vod. transp. no.2:54-65 '59. (MIRA 13:11)

(Cargo handling—Costs)

IRKHIN, Aleksandr Petrovich, kand.tekhn.nauk; YERPICHEV, Mikhail Ivanovich,
      inzh.; TSYPIN, Yakov Yevgen'yevich, inzh.; TIKHOMIROVA, Ye.N.,
      red.; VOLCHOK, K.M., tekhn.red.

      [Economic aspects and the organization of transportation by the
      self-propelled freighter fleet] Ekonomika i organizatsiia pere-
      vozok samokhodnym gruzovym flotom. Leningrad, Izd-vo "Rechnoi
      transport," Leningr.otd-nie, 1960.  94 p.          (MIRA 13:9)
              (Inland water transportation)

BARER, A. S.; GOLOV, G. A.; ZUBAVIN, V. V.; MURAKHOVSKIY, K. I.; RODIN, S. A.;
SOROKINA, Ye. I.; TIKHOMIROV, Ye. P.

"Physiological reactions of the human organism to transverse accelerations and
means of raising the resistance to such forces."

report presented at the 15th Intl Astronautical Cong, Warsaw, 7-12 Sep 64.

BRAUN, A. S.; GOLOV, G. A.; ZUBAVIN, V. B.; MURAKHOVSKIY, K. I.; RODIN, S. A.; SOROKINA, Ye. I.; TIKHOMIROV, Ye. P.

"Physiological reactions of the human organism to transverse accelerations and some means of raising the resistance to such probes."

report submitted for 15th Intl Astronautical Cong, Warsaw, 7-12 Sep 64.

KHomiRoJA, Ye. S.

16(1)          PHASE I BOOK EXPLOITATION          SOV/2660

Vsesoyuznyy matematicheskiy s"yezd. 3rd, Moscow, 1956

Trudy, t. 4: Kratkoye soderzhaniye sektsionnykh dokladov. Doklady inostrannykh uchenykh (Transactions of the 3rd All-Union Mathematical Conference in Moscow. vol. 4: Summary of Sectional Reports. Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy institut.

Tech. Ed.: G.M. Shevchenko; Editorial Board: A.A. Abramov, V.O. Boltyanskiy, A.M. Vasil'yev, B.V. Medvedev, A.D. Myshkis, S.M. Nikol'skiy (Resp. Ed.), A.G. Postnikov, Yu. V. Prokhorov, K.A. Rybnikov, P. L. Ul'yanov, V.A. Uspenskiy, N.G. Chetayev, O. Ye. Shilov, and A.I. Shirshov.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper, to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate volume. The papers, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

Card 14/34

PHASE I BOOK EXPLOITATION     SOV/5305

Moscow. Institut stali

Relaksatsionnyye yavleniya v metallakh i splavakh; trudy Mezhvuzovskogo soveshchaniya. (Relaxation Phenomena in Metals and Alloys; Transactions of the Inter-Institute Conference) Moscow, Metallurgizdat, 1960. 326 p.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR and Moskovskiy institut stali imeni I.V. Stalina.

Ed. (title page): B.N. Finkel'shteyn; Ed, of Publishing House: Ye-I. Levit; Tech. Ed.: A.I. Karasev.

PURPOSE: This collection of articles is intended for personnel in scientific institutions and schools of higher education and for physical metallurgists and physicists specializing in metals. It may also be useful to students of these fields.

COVERAGE: The collection contains results of experimental and theoretical investigations carried out by schools of higher education and scientific research institutions in the field of the relaxation phenomena in metals and alloys. Several articles are devoted to the investigation—by the internal-friction method—of the decomposition of supersaturated solid solution. Also analyzed are the defects of the crystalline lattice, plastic deformation, high-temperature behavior of alloys, and creep. Problems of the relation between internal friction and temper brittleness, the use of the method of internal friction in the investigation of powder-metallurgy products, and the mechanics of impact fatigue are discussed. The collection also contains articles on the damping characteristics of materials, elastic after-effect, and the new alloy-detection method. No personalities are mentioned. References follow most articles. There are 326 references. 192 Soviet and 174 non-Soviet.

Treshbello, S.O. [Leningradsky politechnichesky institut (Leningrad Polytechnic Institute)]. Elastic After-effect of the Alloys Used for Springs     154

Pastov, M.S. [Institut metallovedeniya i fiziki metallov TsNIICM [Institute of Science of Metals and Physics of Metals of the TsNIICM)]. On the Theory of Elastic Aftereffect in Homogeneous Bodies     169

Garber, R.I., and T.F. Mogil'nikova [Fiziko-tekhnichesky institut AN UkrSSR (Physicotechnical Institute of the Academy of Sciences (UkrSSR)]. Internal Friction and Plastic Deformation in Overstressed Microzones of Rigid Bodies     178

Grin', A.V., and V.A. Pavlov [Institute of Physics of Metals of the Academy of Sciences USSR]. Internal Friction in Deformed α-Solid Solutions of Aluminum With Magnesium     189

Lebedev, R.S., and V.S. Postnikov [Kemerovo Pedagogical Institute]. Effect of Plastic Deformation on Internal Friction of Ferrous Alloys     199

Treshbello, S.O. [Leningrad Polytechnic Institute]. Study of Defects in Metal Products and Samples by the Method of Measuring the Damping of Vibrations     222

Pavlov, V.A. [Institute of Physics of Metals of the Academy of Sciences USSR]. Analysis of the Defects in Crystal Lattice by Using the Internal Friction     227

Datsko, O.I., and V.A. Pavlov [Institute of Physics of Metals of the Academy of Sciences USSR]. Dependence of the Internal Friction in Pure Nickel on the Temperature     234

Borisova, N.S., and V.M. Rozenberg [Institute of Science of Metals and Physics of Metals TsNIICM]. Study of the Effect of the Intergranular Structure of Austenite on the Internal Friction and Creep     241

Samoylov, A.Ye., and V.S. Palukov [Kemerovo Pedagogical Institute] Recovery of the Internal Friction in Aluminum, Silver, and Platinum After the Removal of the Loading     251

Postnikov, V.S. [Kemerovo Pedagogical Institute]. Internal Friction of Plastically Deformed Metals and Alloys at Elevated Temperatures     264

Bernshteyn, M.L., and L.S. Tikhonicheva [Moscow Steel Institute]. Effect of Surface-Hardening on the Internal Friction of Commercial-Grade Iron     279

Mateishyut, P.A. [Kiyevskiy gosudarstvennyy universitet (Kiyev State University)]. Analysis of the Maximum Internal Friction on Grain Boundaries in the Aluminum-Copper-Nickel Alloys     289

YEFREMOVICH, V.A.; TIKHOMIROVA, Yu.S.

Equimorphisms of hyperbolic spaces. Izv. AN SSSR. Ser. mat. 28 no.5:
1139-1144 S-O '64.                                            (MIRA 17:11)

TIKHOMIROVA, Ye. S., Cand Geol-Min Sci -- (diss) "Lithology of deposits

of Yasnaya Polyana substratum of the lower carboniferous period of the

southwestern part of Moscow x basin." Mos, 1958.  19 pp (Awad Sci USSR,

Geol Inst), 130 copics (KL, 17-58, 106)

AUTHOR:   Tikhomirova, Ye.S.

TITLE:   The Conditions for the Accumulation of Deposits of the Yasnaya
Polyana Sublayer in the South-West Part of the Moscow Basin
(K voprosu ob usloviyakh nakopleniya otlozheniy yasnopolyan-
skogo pod"yarusa yugo-zapadnoy chasti Podmoskovnogo basseyna)

PERIODICAL:   Byulleten' Moskovskogo obshchestva ispytateley prirody
otdel geologicheskiy, 1958, Nr 2, pp 81-91 (USSR)

ABSTRACT:   From 1949-1956, the author of this article carried out research
on the deposits of the Yasnaya Polyana sublayer in the south-
west of the Moscow basin. The micro-faunal definitions were
given by R.B. Samoylova and R.F. Smirnova (for ostracoda),
Ye.V. Fomina (for foraminifera). The cryptogamic and phanero-
gamic analyses were carried out by L.A. Yushko and M.A. Nedo-
shivina. The Yasnaya Polyana sublayer of the Visean stage o
the Lower Carboniferous period consists of a Tula and a
Stalinogorsk horizon (Figure 1) of which the author gives a
detailed description. In this connection, the names of va
scientists are mentioned, who did research work on this
subject and in some instances hold different opinions, su(
as L.M. Birina, A.Z. Shirokov, V.I. Popov, V.S. Yablokov,
P.M. Pistrak, M.S. Shvetsov and I.D. Zkhus. The findin(

Card

Card 1/2

YEFREMOVICH, V.A.; TIKHOMIROVA, Ye.S.

Continuation of an equimorphism to infinity. Dokl. AN SSSR 152
no.5:1051-1053 O '63.

(MIRA 16:12)

1. Matematicheskiy institut im. V.A.Steklova AN SSSR. Predstavleno
akademikom L.S.Pontryaginym.

TIKHOMIROVA, Ye.S.

Palygorskite from Mangyshlak Lower Oligocene deposits. Dokl.
AN SSSR 149 no.3:688-691 Mr '63.                    (MIRA 16:4)

1. Geologicheskiy institut AN SSSR. Predstavleno akademikom
N.M.Strakhovym.
                    (Mangyshlak Peninsula--Palygorskite)

TIKHOMIROVA, Ye.S.

Groups of uniform homologies.  Izv.AN SSR.Ser.mat. 26 no.6:865-
876 N-D '62.                                      (MIRA 15:12)
                           (Homology theory)

TIKHOMIROVA, Ye.S.

New proximity invariant. Usp.mat.nauk 13 no.5:197-202
(MIRA 11:11)
S-O '58.
(Differential invariants)

TIKHOMIROVA, Ye.S.

Geochemistry of shale-bearing deposits in the Baltic Basin. Dokl.
AN SSSR 136 no.5:1209-1212 F '61.
(MIRA 14:5)

1. Geologicheskiy institut AN SSSR. Predstavleno akad. N.M.
Strakhovym.
            (Estonia—Oil shales)     (Geochemistry)

AUTHOR:     Tikhomirova, Ye.S.

TITLE:.     A New Infinitesimal Invariant (Novyy invariant blizosti)          SOV/42-13-5-8/15

PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 5, pp 197-202 (USSR)

ABSTRACT:   Definition: A Riemannian space is called infinitesimally acyclic in the dimension $r$ if there exist constants $c$ and $C$ so that to every $r$-dimensional cycle $Z^r$ with $d(Z^r) > c$ there exists a chain $L^{r+1}$ for which $\Delta L^{r+1} = Z^r$ and $\frac{d(L^{r+1})}{d(Z^r)} < C$ ($d(x)$ denotes the diameter of the carrier of $x$).
Theorem: The infinitesimal acyclicity is an infinitesimal invariant. Several examples for the application of the introduced notion are given, e.g. infinitesimal classification of the paraboloids of second order.
There are 5 references, 4 of which are Soviet, and 1 German.

SUBMITTED: February 14, 1957

Card 1/1

TIKHOMIROVA, Ye.S.

Infinitesimal classification of surfaces of the second order.
Usp.mat.nauk 9 no.1:121-123 Ja-F '54.

(MLRA 7:2)
(Surfaces)

TIKHOMIROVA, Ye.S.

Factors governing the accumulation of Yasnaya Polyana sediments
in the southwestern part of the Moscow Basin. Biul. MOIP. Otd.
geol. 33  no.2:81-91  Mr-Ap  '58.
(Moscow Basin--Geology, Stratigraphic)          (MIRA 11:10)

AUTHOR:     Tikhomirova, Ye. S.                    2o-119-3-53/65

TITLE:      New Data Concerning the Structure of Upa Deposits in the
            Podmoskovnyy Basin (Novyye dannyye o stroyenii upinskikh
            otlozheniy v Podmoskovskom basseyne)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3,
            pp. 579-581 (USSR)

ABSTRACT:   Up to now it has been assumed that the maximum thickness
            of the Upinskiy zone hardly surpasses 2o to 3o n. Only
            in one case in the Kaluga area $C_1 1ir$ reaches 44 m. The

            most complete scheme of a stratigraphic division was
            suggested in references 1 and 2, on the occasion of which
            4 parcels (Figure 1) were separated. The author investi-
            gated the mentioned zone in detail. Its thickness fluc-
            tuates in the south-western part of the mentioned basin
            between 2o and 53 m. All four parcels mentioned were found
            their thickness being 25 m. For this reason the mass which
            is stratified on it and which has a thickness of 28 m re-
            presents a new, completely unknown part of the Upinskiye
Card 1/3    deposits. The author divided it into 3 parcels and it

New Data Concerning the Structure of Upa Deposits          2o-119-3-53/65
in the Podmoskovnyy Basin

shows certain lithologic and paleontologic characteris-
tics (Figure 1) differing from that of the lower part of
the zone. A lithologic description is given. Thus, the
Upinskiy zone does not consist of 4 but of 7 parcels.
The following parcels were separated in addition to the
hitherto known (References 1,2): 1. Breccia-like lime-
stones of rounded splinters of a size of up to 5 cm cemen-
ted with calcareous loamy substance. 2. Pseudo breccia-
like dolomite containing limestones which formed by recry-
stallization and dolomitization of primary limestones. 3.
Loams of "collomorphous" structure. Ellipsoidal and round
formations of concenters of different colors become visible
under the microscope. The latter consist of loamy substance
and indicate a regrouping of substance in the rocks during
diagenesis. 4. Bituminous coal. In the found intermediate
layer of Klaren-durain lenses of a texture transformed into
fusain and sparse bone splinters were found between the
Gurichella- and Sphaera layers (Figure 1). Concluding, the
process of sedimentation is described according to reference
2. There are 1 figure and 3 references, all of which are
Card 2/3     Soviet.

New Data Concerning the Structure of Upa Deposits
in the Podmoskovnyy Basin                    2o-119-3-53/65

ASSOCIATION: Geologicheskiy institut Akademii nauk SSSR (Geological
Institute, AS USSR)

PRESENTED:  May 6, 1957, by N. M. Strakhov, Member, Academy of Sciences
USSR

SUBMITTED:  April 15, 1957

AVAILABLE:  Library of Congress

Card 3/3

TIKHOMIROVA, Ye.S.

New data concerning the structure of Upa deposits in the Moscow Basin. Dokl. AN SSSR  119 no.3:579-581  Mr '58.              (MIRA 11:6)

1.Geologicheskiy institut AN SSSR.  Predstavleno akademikom N.M. Strakhovym.

(Moscow Basin--Geology, Stratigraphic)

AUTHOR:     Tikhomirova, Ye.S.

SOV/20-120-3-9/57

TITLE:     Some Homological Invariants of Equimorphic Transformations
(Equimorphisms) (Nekotoryye gomologicheskiye invarianty
ekvimorfnykh preobrazovaniy (ekvimorfizmov))

ABSTRACT:   A complete metric space R is called geodesic if for two ar-
bitrary points $x$ and $y$ of R there exists a third point $z$ so
that $\rho(x,z) = \rho(z,y) = 1/2\,\rho(x,y)$. Let R be geodesic. If Y
is an arbitrary continuous chain, then $d(Y)$ denotes the
diameter of the carrier of Y. Let to every positive integer $k$
correspond a domain $P_k \subset R$. Let from $x \in R$ follow $x \in P_k$ if
and only if there exists a continuous cycle $Z \sim 0$ of R with
a carrier containing $x$ so that for every chain X with boundary
Z it holds :

$$\frac{d(X)}{d(Z) + 1} > k \;.$$ Let $H_k^r$ denote the sub-

group of the group of continuous $r$-dimensional homologies of
$P_k$ which consists of all classes homologic to zero in R.
Since $P_k \supset P_{k+1}$ it exists a natural homomorphism $\varphi_k$ of the

Card 1/2

Some Homological Invariants of Equimorphic Transformations    SOV
(Equimorphisms)    /20-120-3-9/67

group $H_{k+1}^r$ into the group $H_k^r$. The limit value (according
to Aleksandrov [Ref 2]) of the series of homomorphisms
defined in this way is denoted by $Q^r$.
The author shows that the group $Q^r$ is an invariant of the equi-
morphic transformations of the geodesic space R. Some examples
are given.
The paper is written under the guidance of V.A. Efimovich and
represents a part of the dissertation of the author.
There are 3 Soviet references.

ASSOCIATION: Belgorodskiy gosudarstvennyy pedagogicheskiy institut (Bel-
gorod State Pedagogical Institute)
PRESENTED:    January 8, 1958, by P.S. Aleksandrov, Academician
SUBMITTED:    December 30, 1957

1. Transformations (Mathematics)    2. Geodesics    3. Topology

Card 2/2

*TIkhomirova, Ye. S.*

AUTHOR:     Tikhomirova, Ye. S.

20-4-33/52

TITLE:      On the Problem of the Distribution of Rare Element
Proportions in the Deposits of the Tula Horizon of the
South-Western Part of the Podmoskovnyy Basseyn (Near-
Moscow Basin) (K voprosu o raspredelenii rasseyannykh soderzhaniy
elementov v otlozheniyakh tul'skogo gorizonta yugo-zapadnoy
chasti Podmoskovnogo basseyna).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 4, pp. 661-664 (USSR)

ABSTRACT:   The investigation of the genesis of deposits and the
regularity of diatribution and accumulation of different
elements in the sediments is only possible by geochemical
study of the sedimentary masses. The treatise discussed
here treats the distribution of Fe, Mn, P and some other
elements in the strata mentioned in the title. A short
characterization of the Tula horizon is given. The author
studied the problem mentioned shove in sediments of marine
genesis. Figure 1 a shows that the proportion of iron
is increased at the transition from sands to aleurolites
and loams. The highest proportion is reached in loams.
In carbonate rocks the proportion of iron decreases. But if
we convert the quantity of iron to the weighed quantity free

Card 1/4

On the Problem of the Distribution of Rare Element
Proportions in the Deposits of the Tula Horizon of the
South-Western Part of the Podmoskovnyy Basseyn (Near-
Moscow Basin)                                                20-4-33/52

      from carbonate we see that the quantity of iron is rapidly
increased. This proves that iron has the tendency to
accumulate in the parts of the water most distant from the
banks. The results of the calculation of the proportion of
iron in minerals with little proportions of organic substance
showed that the concentration of organic substance in
sediments causes the decrease of the proportion of iron.
We can conclude from that the biogenetic supply of iron
to the sediments was of no essential importance. The same
regularity applies to the distribution of phosphorus and
manganese (figure 2). The proportion of phosphorus differs
very much, and often there is none at all. This can be
explained by its higher biochemical mobility and by its
capacity of redistribution in the sediment during the
diagenesis. Moreover figure 2 a shows that the quantity of
manganese in carbonate rocks is increased to such an extent
that its absolute values are still increased in spite of the
Card 2/4     diluting effect of the carbonate material. There is a

On the Problem of the Distribution of Rare Element
Proportions in the Deposits of the Tula Horizon of the        20-4,33/52
South-Western Part of the Podmoskovnyy Basseyn (Near-
Moscow Basin)

contrast between the distribution of Mn and P in pelagic
facies and in those near to the banks. So figure 2 b shows
that P is accumulated 39 times more intensely in pelagic
parts than in the sand, whilst this relation is 1775 with
Mn. Table 1 shows that the proportion of "small" elements
(Cu, Cr, V, Ni, and Co) increases when the diameter of the
elastic material is decreased, and decreases at the transition
from loams to carbonate rocks. The proportion of all of
these 5 elements increases at a conversion to a weighed
quantity free from carbonate. If the proportion of each
element in loames is denoted with 1 the greatest contrast
of proportion is with copper which is 43 times more
accumulated in carbonate rocks than in terrigenous rocks.
These relations are 14,9 with Cr, 17,9 with Ni, 16,9 with V,
and 9,2 with Co. The author concludes from the approximative
average determinations of the proportions of Ti, Mg, Be, Ga,
and Ba in the mineral types that on the whole these elements
are distributed according to the same regularity which
applies to the siderophilic group (table 2). The comparison

Card 3/4

On the Problem of the Distribution of Rare Element
Proportions in the Deposits of the Tula Horizon of the     20-4-33/52
South Western Part of the Podmoskovnyy Basseyn (Near-
Moscow Basin)

of recent and fossil sediments (Tula horizon, Under Frasnian,
reference 5) shows the corresponding distribution of elements
in different mineral types. The scheme of Strakhov
(reference 4) for recent waters can also be employed to older
sediments. Finally the differences in the proportions of the
mentioned "small" elements in Tula and Under Frasnian sediments
are discussed, and explaining hypotheses are given.
There are 2 figures, 3 tables, and 7 references, all of which
are Slavic.

ASSOCIATION: Geologic Institute of the AN USSR (Geologicheskiy institut
Akademii nauk SSSR)

PRESENTED: May 6, 1957, by N. M. Strakhov, Academician

SUBMITTED: April 29, 1957

AVAILABLE: Library of Congress
Card 4/4

TIKHOMIROVA, Ye.S., Cand Phys &&i Math Sci -- (diss)"Homological

invariants of equimorphisms." Mos,1958, 5 pp (Acad Sci USSR.

Math Inst im V.A. Steklov) 120 copies (KL, 32-58, 106)

TIKHOMIROVA, Ye.S.

Geochemical mobility of elements during the formation of sulfide
concretions in shale-bearing deposits of the Volga and Baltic
Basins. Dokl. AN SSSR 135 no.6:1501-1504 D '60.      (MIRA 13:12)

1. Geoligicheskiy institut Akademii nauk SSSR.  Predstavleno
akademikom N.M. Strakhovym.
         (Volga Valley--Pyrites)      (Concretions)   (Geochemistry)

TIKHOMIROVA, Ye.S.

Distribution of iron, manganese, and phosphorus in lower Oligocene deposits of Manyshlak. Dokl. AN SSSR 143 no.3:705-708 Mr '62.

(MIRA 15:3)

1. Geologicheskiy institut AN SSSR. Predstavleno akademikom N.M. Strakhovym.

(Mangyshlak Peninsula--Manganese ores)    (Geochemistry)

TIKHOMIROVA, Ye.S.

Barite from lower Oligocene deposits of Mangyshlak. Dokl. AN SSSR
140 no.2:455-458 S '61. (MIRA 14:9)

1. Geologicheskiy institut AN SSSR. Predstavleno akademikom N.M.
Strakhovym.
(Aksengir, Mount--Barite)

ELIASHBERG, M.G.; PARFENOVA, A.I.; TIKHOMIROVA, Ye. V.

New data on the theory of the sulfite process and its practical significance.  Bum.prom.30 no.9:9-13 S '55.          (MLRA 8:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut bumagi
(Wood pulp)

TIKHOMIROVA, Ye.V.

Studying the effect of temperature and time of drying on the
properties of flax yarn. Report No.1.  Izv. vys. ucheb. zav.;
tekh. tekst. prom. no.1:19-25  '64.

(MIRA 17:5)

1. Kostromskoy tekhnologicheskiy institut.

TIKHOMIROVA, Ye.V.

Changes occurring in the mechanical properties of flax-lavsan fiber blends as a result of heating during drying. Izv.vys.ucheb. zav.; tekh.tekst.prom. no.3:33-36 '65.

(MIRA 18:5)

1. Kostromskoy tekhnologicheskiy institut.

ELIASHBERG, M.G.; PARFENOVA, A.I.; TIKHOMIROVA, Ye.V.

New data on the theory of sulfite wood pulp cooking and their practical significance. Bum.prom. 30 no.10 no.10:5-7 O '55.
(MLRA 9:1)

1.TSentral'nyy nauchno-issledovatel'skiy institut bumagi.
(Wood pulp)

TIKHOMIROVA, Ye.V.

Studying the effect of the temperature and time of drying on the properties of linen yarn. Izv. vys. ucheb. zav.; tekh. teks. prom. no.3:26-31 '64.                                                    (MIRA 17:10)

1. Kostromskoy tekhnologicheskiy institut.

TIKHOMIROVA, Ye.V.

Studying the effect of temperature and time of drying on the
properties of flax yarn. Report No.1. Izv. vys. ucheb. zav.;
tekh. tekst. prom. no.4:16-19 '64.    (MIRA 17:12)

1. Kostromskoy tekhnologicheskiy institut.

PAKHMAN, T.A., kand. ekonom. nauk; MEZHOVA, R.V., kand. tekhn. nauk; OLEYNIK, O.A., inzh.; YUDINA, N.V.; BERNGARD, K.A., doktor tekhn. nauk, prof.; FROLOV, I.A., inzh.; TIKHONCHUK, Yu.N., kand. ekon. nauk; Prinimali uchastiye: AVAK'YANTS, N.M., inzh.; SHCHERBINA, R.M., inzh.; PETROVA, V.L., red.

[Organization of the railroad transportation of petroleum and chemical liquid cargo.] Organizatsiia zheleznodorozhnykh perevozok neftianykh i khimicheskikh nalivnykh gruzov. Moskva, Transport, 1964. 119 p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta no.279).

(MIRA 17:12)

TIK: ... , .N., kand. ekonom. nauk

Coordinated development and distribution of the freight organizations for railroads. Transp.stroi. 13 no.10:52-53 O '63.                                    (MIRA 17:8)

L 41852-55

ACCESSION NR: AT5006618 · BOOK EXPLOITATION 8/

Pakhman, T. A. (Candidate of Economic Sciences); Nezhova, R. V. (Candidate of Technical Sciences); Oloynik, O. A. (Engineer); YUdina, N. V.; Borngard, K. A. (Doctor of Technical Sciences; Professor); Frolov, I. A. (Engineer); Konchuk, IU. N. (Candidate of Economic Sciences)

Organization of the railroad transportation of petroleum and chemical liquid froight (Organizatsiya zheleznodorozhnykh perevozok neftyanykh i khimicheskikh nalivnykh gruzov), Moscow, Izd-vo "Transport", 1964, 119 p. illus., biblio. 1,500 copies printed. Series note: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Trudy. vyp. 279.

TOPIC TAGS: railroad transportation, oil product, chemical, railroad tank car, railroad freight organization

PURPOSE AND COVERAGE: This book presents a brief analysis of the freight traffic of oil, oil products and chemicals carried in railroad tank cars. It considers problems of specialization in the types of tank cars, equipping special stations for sorting and processing empty tank cars, routing freight, and the concentration of the discharge of oil products at the least number of

Card 1/3

L 41862-65
ACCESSION NR AM5006618

O

stations. The book is intended for researchers, engineers, and technicians of railroad transportation, industry, and other organizations involved in the transportation of petroleum and chemical freight. The book was written by Candidate of Economic Sciences, T. A. Pakhman (Ch. 1, Section 1), Candidate of Technical Sciences, R. V. Mezhova (Ch. 1, Sections 2 and 3, Ch. 2, Sections 1 and 2), Engineers, O. A. Oleynik and N. V. IUdina (Ch. 1, Section 4), Doctor of Technical Sciences, Professor, K. A. Berngard (Ch. 2, Sections 3 and 4, Ch. 3, Sections 1, 2 and 3, Ch. 3, Sections 4, 5, 6 and 7), Candidate of Economic Sciences, YU. N. Tikhonchuk (Ch. 5). Assistance in the calculations was provided by Engineers, N. M. Avakyants and R. M. Shcherbina.

TABLE OF CONTENTS [abridged]:

Card  2/3

L 41862-65
ACCESSION NR AM5006618

Ch. V. Concentration of discharge points of petroleum products — 101
Bibliography — 118

SUBMITTED: 22Jun64                    SUB CODE: GO

NO REF SOV: 012                       OTHER: 006

Card 3/3

TIKHOMIROVA, Yu.S.

Scientific session on physical electronics. Radiotekh. i elektron.
9 no.12:2195-2196  D '64                    (MIRA 18:1)

L 16004-65    AEDC(b)
ACCESSION NR: AP5000465

AUTHOR: Tikhomirova, Yu. S.

TITLE: Scientific Conference on physical electronics

SOURCE: Radiotekhnika i elektronika, v. 9, no. 12, 1964, 2195-2196

TOPIC TAGS: physical electronics

ABSTRACTS: Organized by the Scientific Board on Physical Electronics, O f7 AN,

Card 1/2

L 16004-65
ACCESSION NR: AP5000465

physics of secondary electron and ion emissions these persons reported:
I. M. Bronshteyn, S. S. Denisov, L. A. Yermolayeva, A. R. Shul'man, N. A.
Arifov, A. Kh. Kasymov, A. Kh. Ayukhanov, and A. R. Aliyev. A section devoted
to the phenomena in thin metal, semiconductor, and dielectric films these
persons reported: P. G. Borzyak, O. G. Sarbey, R. N. Fedorovich, A. A. Vorob'yev,
G. A. Vorob'yev, A. V. Baranov, A. M. Kushnir, B. I. Timan, V. G. Ivanov,
I. I. Komarov, R. N. Ivanov, and M. I. Yelinson. Orig. art. has:
formulas and tables.

ASSOCIATION: none

SUBMITTED: 00                                          ENCL: 00

SUB CODE:  SS, EC              NO REF SOV: 000          OTHER: 000

Card 2/2

BUKHGOL'TS, V.P., kand.tekhn.nauk; TIKHOMIROVA, A.T., inzh.

Graphoanalytic method of designing a magnetic circuit with a large
air space. Mekh. i avtom. v gor. prom. no.3:267-287 '63.
(MIRA 16:10)

86875

*9. 2120*
*9. 2/3 0 (1001, 1135)*

S/105/61/000/001/002/007
B012/B059

AUTHOR:     Tikhomirova, Z. T., Engineer

TITLE:      Examination of the Methods of Calculating Air-gap Magnetic
            Circuits of Instruments and Apparatuses

PERIODICAL: Elektrichestvo, 1961, No. 1, pp. 42-48

TEXT:  In the present paper, four calculation methods are compared with the
experimental data. The model of a magnetic circuit shown in Fig. 1 serves
as basis. According to this comparison, the use of the mentioned methods is
recommended for various cases. A magnetic circuit with distributed
magnetizing force is investigated, i.e., a magnetic system in which the
stray flux between the cores is not linked to all turns of the coil and in
which the magnetizing force of the coil changes with the length of the
core according to the $f_{\kappa}$ x-law. The methods of solving equation (3)

$$\frac{d^2\Phi_x}{dx^2} - 2gR_\mu\Phi + gf_\kappa = 0, \qquad (3)$$

Card 1/3

86875

Examination of the Methods of Calculating      S/105/61/000/001/002/007
Air-gap Magnetic Circuits of Instruments        B012/B059
and Apparatuses

at $g$ = constant and $\mu \neq$constant, i.e. a saturated system with constant
stray conductivity (provodimost' rasseyaniya) are investigated. $f_k$ denotes
the specific magnetizing force of the coil, $g$ - the specific conductivity
of straying between the cores, $R_\mu$ - the magnetic reluctance of the core per
unit length. The following 'approximation methods are discussed: 1) the
graphical-analytical method as suggested by B. S. Sotskov (Ref. 1),
2) the method of numerical integration (Refs. 2,3), 3) the method of
double graphical integration worked out by N. A. Livshits (Ref. 4),
4) the graphical-analytical method (solution of the equation by means of
isoclinic lines) worked out by B. K. Bul' (Ref. 5). According to this
investigation, the following is stated. The method suggested by B.S.Sotskov
(Ref. 1) is the most convenient one and requires the least work. The great
advantage of this method is the quick and clear determination of the coil
magnetic force from given flux in the air gap as well as solution of the
inverse problem. All other methods solve the problem by means of successive
approximation. However, considering the fact that B. S. Sotskov's method

Card 2/3

86875

Examination of the Methods of Calculating          S/105/61/000/001/002/007
Air-gap Magnetic Circuits of Instruments           B012/B059
and Apparatuses

leads to great errors, particularly in the case of narrow gaps, the former
method  is recommended for preliminary calculation of the magnetic circuit
in designing electrical devices. The method of numerical integration is
also recommended for preliminary computation of magnetic circuits. It is
not recommended for checking. However, this method has an advantage: A
magnetic circuit can be calculated in the case of varying specific
conductivity of straying (assuming g to be constant in this section). This
problem cannot be solved by means of any other of the mentioned methods.
The methods of double numerical integration and the method of the isoclinic
lines are the most accurate ones and are recommended for control computations.
Lengthy work is a shortcoming of these methods. There are 7 figures,
3 tables, and 6 Soviet references.

SUBMITTED:   June 8, 1960

Card 3/3
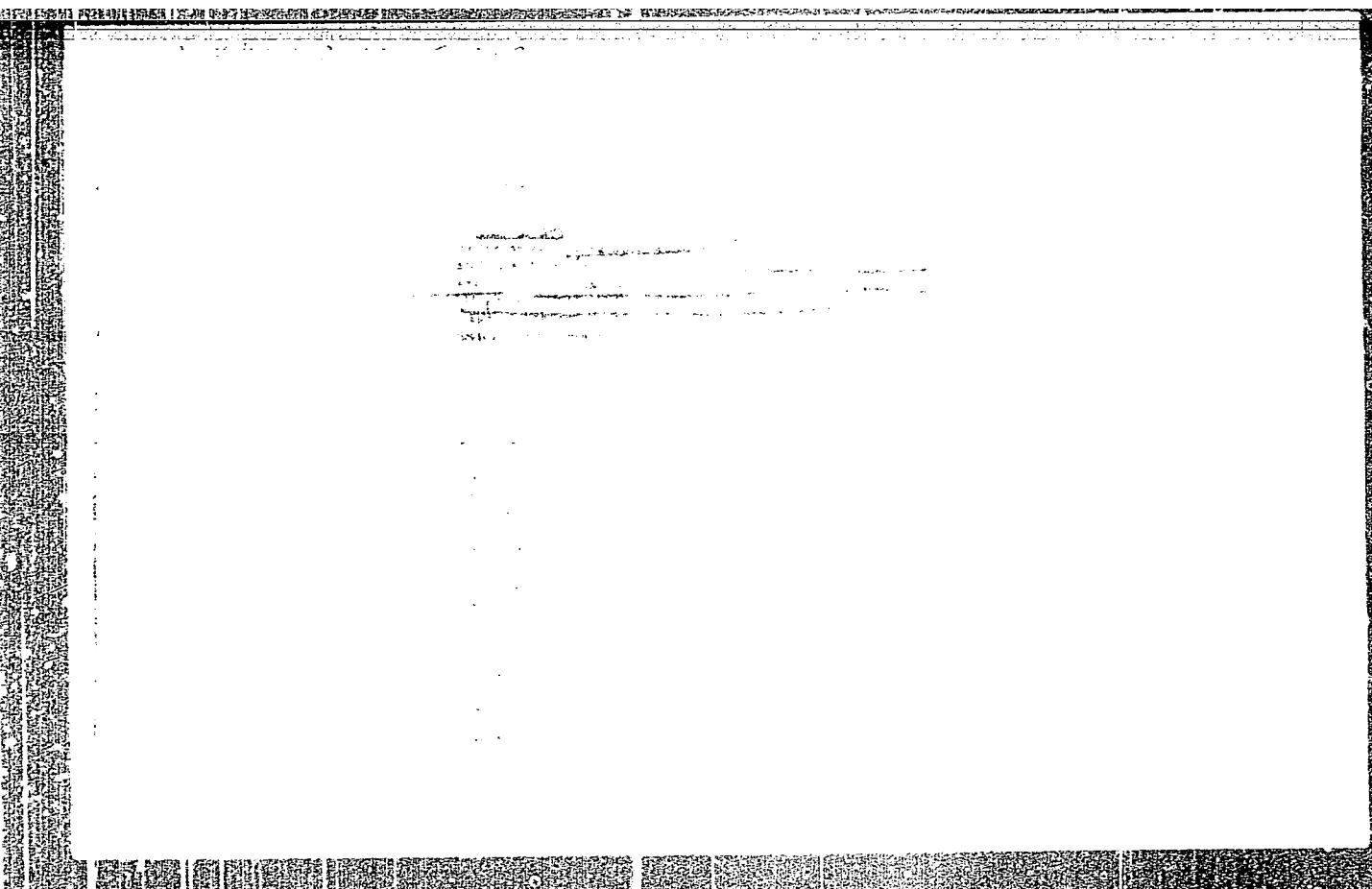
AUTHORS:        Tikhomirova-Sidorova, N. S.;            SOV/79-28-12-9/41
                Ustyuzhanin, G. Ya.

TITLE:          Amino Derivatives of 1,4-Anhydroxylite  (Aminoproizvodnyye
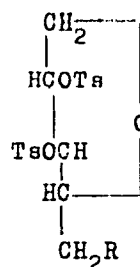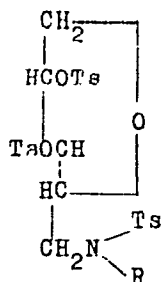                1,4-angidroksilita)

ABSTRACT:       The authors completed their earlier papers (Ref 1) by
                synthesizing the amino derivatives of xylitane starting from
                its chlorohydrin (5-chloro-1,4-anhydroxylite).  The amino
                derivatives of xylite and xylitane have hitherto remained
                unknown.  There is only few data available on the amination
                of the other multivalent alcohols.  Thus, the 1,6-diamino
                mannite was obtained from dichloro-dimethylene mannite on
                heating   in the autoclave with ammonia in methyl alcohol
                (Ref 2).  Reactions of xylitane chlorohydrin with various amines
                were investigated and the following compounds, hitherto unknown
                were synthesized: 5-amino-1,4-anhydroxylite (I), 5-ethyl-amino-
                1,4-anhydroxylite (II), 5-diethyl-amino-1,4-anhydroxylite (III),
                5-phenyl-amino-1,4-anhydroxylite (IV), and 5-piperidino-1,4-
Card 1/3        anhydroxylite (V).  The amines were characterized by their

Amino Derivatives of 1,4-Anhydroxylite                SOV/79-28-12-9/41

tosyl derivatives which were used for the following syntheses.
The action of p-toluenesulfonyl chloride is directed to the
transformation of the alcohol groups into ester groups (VI to X)
as well as to the amino groups for the primary amine (I) and the
secondary amines (II, IV), with substituted sulfonamides
(VI-VIII) being formed.

$$
\begin{array}{cc}
\text{CH}_2 & \text{CH}_2 \\
| & | \\
\text{HCOTs} & \text{HCOTs} \\
| \qquad O & | \qquad O \\
\text{TsOCH} & \text{TsOCH} \\
| & | \\
\text{HC} & \text{HC} \\
| & | \\
\text{CH}_2\text{N}\diagdown^{\text{Ts}}_{\text{R}} & \text{CH}_2\text{R}
\end{array}
$$

$R=H(VI), C_2H_5(VII), C_6H_5(VIII).$   $R=N(C_2H_5)_2(IX), N(CH_3)_5(X).$

$Ts=O_2SC_6H_4CH_2-p$

Card 2/3

Amino Derivatives of 1,4-Anhydroxylite                    SOV/79-28-12-9/41

The conditions of the synthesis, the properties and analyses
of the amino derivatives of xylitane are mentioned in table 1,
their tosyl esters are mentioned in table 2.  There are 2
tables and 2 references, 1 of which is Soviet.

ASSOCIATION:    Institut vysokomolekulyarnykh soyedineniy Akademii nauk
                SSSR (Institute of High-Molecular Compounds, Academy of Sciences,
                USSR)

SUBMITTED:      January 20, 1958

Card 3/3

AUTHORS:       Temnikova, T. I., Anikeyeva, A. N.,       SOV/79-28-12-2/41
               Tikhomirova-Sidorova, N. S.

TITLE:         S. N. Danilov's Work in the Field of Isomeric Transformations
               and Molecular Regroupings of Carbonyl, Oxy-Carbonyl Compounds
               and Carbohydrates, and Their Theoretical Importance (Raboty
               S. N. Danilova v oblasti izomernykh prevrashcheniy i
               molekulyarnykh peregruppirovok karbonil'nykh, oksikarbonil'nykh
               soyedineniy i uglevodov i ikh teoreticheskoye znacheniye)

ABSTRACT:      Since Danilov's first work 45 years ago there has taken place
               a great change in theory concerning the problem of the
               molecular regroupings and isomeric transformations of oxygen-
               containing compounds; this was mainly due to Danilov's and
               his cooperators' work. At present it is taken for sure that
               molecular regroupings which complicate chemical processes
               in organic chemistry, depend kinetically on the displacement
               of the hydrogen atoms or the carbohydrate group into the
               adjacent position. The isomeric equilibrium transformations,
Card 1/3       which take place very easily in some cases under the influence

S. N. Danilov's Work in the Field of Isomeric          SOV/79-28-12-2/41
Transformations and Molecular Regroupings of Carbonyl, Oxy-Carbonyl Compounds
and Carbohydrates, and Their Theoretical Importance

of the catalysts favorable to these transformations, depend,
like all equilibrium processes, on thermodynamic factors.
According to detailed reports published by Danilov important
conditions are mentioned that must be taken into consideration
in interpreting the mechanism of molecular regroupings of the
α-glycols. The basic idea throughout all his papers is that
the process of transformation depends not only on the radicals
but also on their interaction, on the dehydrating agent and on
conditions under which the dehydration takes place. He and his
cooperators systematically investigated the behavior of
α-oxy-aldehydes under the action of various catalysts, which
led to important results. The oxy-aldehyde-oxy-ketone
regrouping in acid medium according to Danilov takes place
under an intermediate formation of α-alcohol oxides (scheme
on page 3167). The manifold types of isomeric transformations
and molecular regroupings were illustrated by Danilov with
supplementary informations offered by other scientists ac-
cording to the scheme of transitions of genetically related

Card 2/3

S. N. Danilov's Work in the Field of Isomeric          SOV/79-28-12-2/41
Transformations and Molecular Regroupings of Carbonyl, Oxy-Carbonyl Compounds
and Carbohydrates, and Their Theoretical Importance

compounds as mentioned on page 3169 (upper half); this was
carried out, for instance, in the case of compounds with two
phenyl groups and two carbon atoms in the chain (the big
arrows point to the transformation types realized by him).
The logical continuation of the investigations of the
transformations of α-oxy-carbonyl compounds were his manifold
papers on the monoses and disaccharides, as, for instance,
those on a new method for the "epimerization" of sugars. He
and his cooperators synthesized a large number of derivatives
of multivalent alcohols, their aldehydes and monoses. Based
on an intramolecular simultaneous acid-alkaline reaction
process found by him in a large number of reactions he could
explain many biochemical processes of nature. There is 1 table.

Card 3/3

DANILOV, S.N.; TIKHOMIROVA-SIDOROVA, N.S.; USTYUZHANIN, G.Ye.;
        YEFIMOVA, G.Ye.; KOGAN, E.M.

DANILOV, S.N.; TIKHOMIROVA-SIDOROVA, N.S.; USTYUZHANIN, G.Ye.;
        YEFIMOVA, G.A.

        Cleavage of an anhydride ring in dianhydroxylitol by amines.
        Zhur.ob.khim. 32 no.11:3614-3618 N '62.        (MIRA 15:11)

        1.  Institut vysokomolekulyarnykh soyedineniy AN SSSR.
                (Xylitol)              (Anhydrides)          (Amines)

USTYUZHANIN, G.Ye.; YEFIMOVA, G.A.; KOGAN, E.M.; TIKHOMIROVA-SIDOROVA, N.S.;
DANILOV, S.N.

Cleavage of an anhydride ring in dianhydroxylitol and its
derivatives by hydrogen chloride in glacial acetic acid.
Zhur.ob.khim. 32 no.11:3617-3621 N '62.        (MIRA 15:11)

1.  Institut vysokomolekulyarnykh soyedineniy AN SSSR.
     (Xylitol)       (Anhydrides)       (Hydrochloric acid)